



1636 \$

PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

CERTIFICATE OF MAILING

I hereby certify that this INFORMATION DISCLOSURE STATEMENT and documents submitted therewith are being deposited with the United States Postal Service as first class mail, postage prepaid thereon, in an envelope addressed to: Assistant Commissioner for Patents, Washington, D.C. 20231, on the date indicated below.

Thomas E. Northrup  
Thomas E. Northrup, Reg. No. 33,268

7-12-2000  
Date

#21  
M.G.  
7/27/00

Applicant : Maruyama, et al. )  
Serial No. : 08/852,020 ) Group: 1636  
Filed : May 6, 1997 ) Examiner: G. Leffers Jr  
For : LAMBDOID BACTERIOPHAGE ) Our Ref. TSRI 432.0 D1  
VECTORS FOR EXPRESSION )  
OF FOREIGN PROTEINS )

INFORMATION DISCLOSURE STATEMENT

RECEIVED  
JUL 26 2000  
TECH CENTER 1600/2900

Assistant Commissioner for Patents  
Washington, D.C. 20231

Dear Sir:

In recognition of its continuing duty to disclose pursuant to 37 CFR §1.56, Applicant hereby submits the present Information Disclosure Statement in compliance therewith.

Pursuant to 37 CFR § 1.98(d), enclosed herewith are copies of the Information Disclosure Statement and accompanying PTO Form 1449 filed in parent application 08/286,888 filed on August 5, 1994. Also, pursuant to 37 CFR §1.98(d), copies of the above references are not submitted herewith, as they are available in the parent patent application 08/286,888.

Applicants understand that the interpretation given to each reference may differ from one individual to another. The PTO is therefore encouraged to independently examine the disclosed references. While the references provided in this Information

Serial No.: 09/277,064

TSRI 433.1 D1

Disclosure Statement may be material pursuant to 37 CFR 1.56, it shall not be construed to be an admission that the cited information is, or is considered to be, material to patentability unless specifically designated as such.

Applicants are filing the present statement pursuant to 37 CFR 1.97 (c), and therefore is accompanied by a check in the amount of \$240.00 as payment of the fee set forth in 37 CFR §1.17 (p).

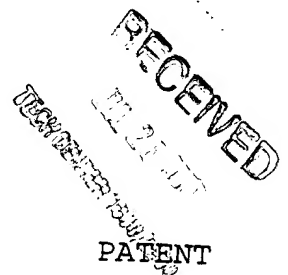
Also, in accordance with 37 CFR 1.97 (g), the filing of this Information Disclosure Statement shall not be construed to mean that a search has been made or, that if made, any search was complete or exhaustive, or that no other material information as defined in 37 CFR 1.56 exists.

Respectfully submitted,

Dated: 7-12-2000

By Thomas E. Northrup  
Thomas E. Northrup, Reg. No. 33,268

THE SCRIPPS RESEARCH INSTITUTE  
Office of Patent Counsel  
10550 North Torrey Pines Road  
Mail Drop TPC-8  
La Jolla, CA 92037  
(858) 784-2937



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

CERTIFICATE OF MAILING

I hereby certify that this INFORMATION DISCLOSURE STATEMENT and documents submitted therewith are being deposited with the United States Postal Service as first class mail, postage prepaid thereon, in an envelope addressed to: Hon. Commissioner of Patents and Trademarks, Washington, D.C. 20231, on the date indicated below.

Thomas Fitting  
Thomas Fitting, Reg. No. 34,163

January 19, 1995  
Date

Applicant	: Maruyama, et al.	)	
Serial No.	: 08/286,888	)	Group Art Unit: Unknown
Filed	: 08/05/94	)	
For	: LAMBDROID BACTERIOPHAGE VECTORS FOR EXPRESSION OF FOREIGN PROTEINS	)	Examiner: Unknown
		)	
		)	Our Ref. TSRI 432.0
		)	

INFORMATION DISCLOSURE STATEMENT

Hon. Commissioner  
of Patents and Trademarks  
Washington, D.C. 20231

Dear Sir:

In recognition of their continuing duty to disclose pursuant to 37 CFR 1.56, Applicants hereby submit the present Information Disclosure Statement and accompanying PTO Form 1449 in compliance therewith. Copies of the references cited therein are also enclosed.

The following references were cited in the application and are believed relevant for the reasons set forth in the specification:

1. Bass et al., Proteins, 8:309-314, 1990

2. Katsura, J. Mol. Biol., 146:493-512, 1981
3. Kusui et al., J. Biochem., 109:899-903, 1991
4. McCafferty et al., Nature, 348:552-554, 1990
5. Smith et al., Science, 228:1315-1317, 1985
6. Wong et al., Gene, 44:315-324,
7. "Lambda II", Cold Spring Harbor Laboratory, Cold Spring Harbor, New York, pp. 279-304 and 331-363, 1983
8. "The Operon", Cold Spring Harbor Laboratory, Cold Spring Harbor, New York, pp. 89-121, 1980

The reference Bass et al., Proteins, 8:309-314, 1990 describes the expression of human growth hormone fused to the surface of a filamentous bacteriophage. Katsura, J. Mol. Biol., 146:493-512, 1981 describe a mutant of the lambda bacteriophage tail protein pV. Kusui et al., J. Biochem., 109:899-903, 1991 contains the cDNA sequence of Bauhinia purpurea lectin. McCafferty et al., Nature, 348:552-554, 1990 describe the expression of an antibody fused to the surface of filamentous bacteriophage. The reference Smith et al., Science, 228:1315-1317, 1985 describes the expression of polypeptides fused to the surface of filamentous bacteriophage as a method for recovering a particular sequence from a large ensemble of clones. Wong et al., Gene, 44:315-324 describe the amino acid residue sequence of Cellulomonas fimi endo- $\beta$ -1,4-glucanase which links the pV protein and the expressed polypeptide. The book "Lambda II", Cold Spring Harbor Laboratory, Cold Spring Harbor, New York, pp. 279-304 and 331-363, 1983 describes the details of the structure of lambdoid phage particles, their coat and tail proteins and particle assembly. The book "The Operon", Cold Spring Harbor Laboratory, Cold Spring Harbor, New York, pp. 89-121, 1980 contains descriptions and details of the characterization of  $\beta$ -gal.


Applicants understand that the interpretation given to each reference may differ from one individual to another. The PTO is

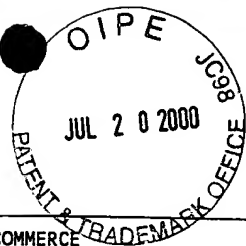
therefore encouraged to independently examine the disclosed references. While the references provided in this Information Disclosure Statement may be material pursuant to 37 CFR 1.56, it shall not be construed to be an admission that the cited information is, or is considered to be, material to patentability unless specifically designated as such.

Applicants are filing the present statement pursuant to 37 CFR 1.97 (b) insofar as this statement is being filed before the mailing date of a first Office Action.

Also in accordance with 37 CFR 1.97 (g), the filing of this Information Disclosure Statement shall not be construed to mean that a search has been made or, that if made, any search was complete or exhaustive, or that no other material information as defined in 37 CFR 1.56 exists.

Respectfully submitted,

Dated: January 19, 1995 By:   
Thomas Fitting  
Registration No. 34,163  
THE SCRIPPS RESEARCH INSTITUTE  
Office of Patent Counsel  
10666 N. Torrey Pines Road  
Mail Drop TPC-8  
La Jolla, CA 92037  
(619) 554-2937



FORM PTO-1449 U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE				ATTY DOCKET NO. SCR 1559P		SERIAL NO. 08/286,888	
INFORMATION DISCLOSURE STATEMENT BY APPLICANT				APPLICANT Maruyama, et al.			
				FILING DATE 08/05/94		GROUP Unknown	
U.S. PATENT DOCUMENTS							
EXAM. INITIALS		DOCUMENT NUMBER	DATE	NAME	CLASS	SUB- CLASS	FILING DATE
FOREIGN PATENT DOCUMENTS							
EXAM. INITIALS		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB- CLASS	FILING DATE
OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages)							
1	Bass et al., <u>Proteins</u> , 8:309-314, 1990						
2	Katsura, J. <u>Mol. Biol.</u> , 146:493-512, 1981						
3	Kusui et al., <u>J. Biochem.</u> , 109:899-903, 1991						
4	McCafferty et al., <u>Nature</u> , 348:552-554, 1990						
5	Smith et al., <u>Science</u> , 228:1315-1317, 1985						
6	Wong et al., <u>Gene</u> , 44:315-324, 1986						
7	"Lambda II", <u>Cold Spring Harbor Laboratory</u> , Cold Spring Harbor, New York, pp. 279-304 and 331-363, 1983						
8	"The Operon", <u>Cold Spring Harbor Laboratory</u> , Cold Spring Harbor, New York, pp. 89-121, 1980						
EXAMINER				DATE CONSIDERED			

EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to Applicant.

U.S. PATENT DOCUMENTS							
EXAM. INITIALS		DOCUMENT NUMBER	DATE	NAME	CLASS	SUB- CLASS	FILING DATE
	1	5,627,024	5/ 6/ 1997	Ichiro Maruyama; Hiroko Maruyama; Sydney Brenner			8/ 5/ 1994

[illegible]

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages)		
	3	Rebar, et al., "Zinc Finger Phage: Affinity Selection of Fingers with New DNA-Binding Specificities", <u>Science</u> 263: 671-673 (1994)
	4	Mikawa, et al., "Surface Display of Proteins on Bacteriophage λ Heads", <u>J. Mol. Biol.</u> 262: 21-30 (1996)
EXAMINER		DATE CONSIDERED

EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to Applicant.